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# International Environmental Intelligence Brief

DCI Environmental Center

29 October 1997

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APPROVED FOR RELEASE  
DATE: 17-May-2011

## **Worsening Drought in Indonesia Heightens Instability Concerns**

US weather experts predict an unusually severe El Niño effect could deprive most of Indonesia of significant rainfall during the critical monsoon period that normally runs from late this month through next March. The country is suffering from its worst drought in 50 years, with many regions reporting 25- to 50-percent less rainfall than average over the past six months.

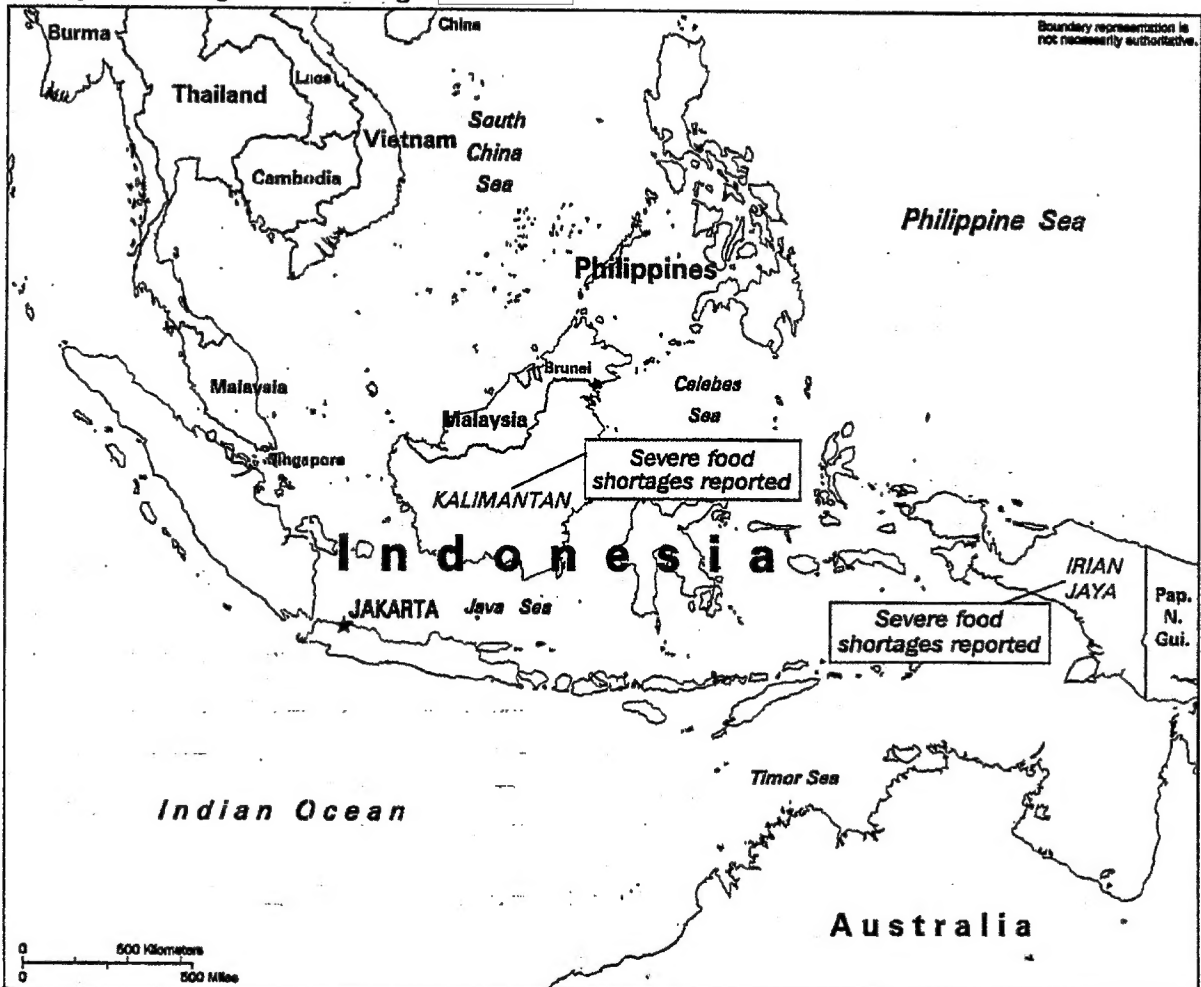
—At least 416 people have died in Irian Jaya as a result of the drought, according to press reports, and nearly 90,000 face serious food shortages exacerbated by logistic difficulties associated with distribution of supplies to remote areas.

Indonesia will have to import about 9 million tons of grain—nearly twice its average annual grain imports of the past five years—to maintain a constant level of consumption next year. Jakarta has sufficient foreign exchange reserves—more than \$20 billion—to finance the projected increase, but drought-induced price hikes and the ongoing currency crisis in the region will prompt double-digit inflation by early next year, according to economic forecasters.

Growing public anger over the government's ineffective response to the drought's worst effects could embarrass President Soeharto in the runup to his expected nomination to a seventh term next March.

the poor are increasingly upset about rising food prices, and the media report Muslim leaders have warned that the current environmental and economic crises constitute a divine warning.

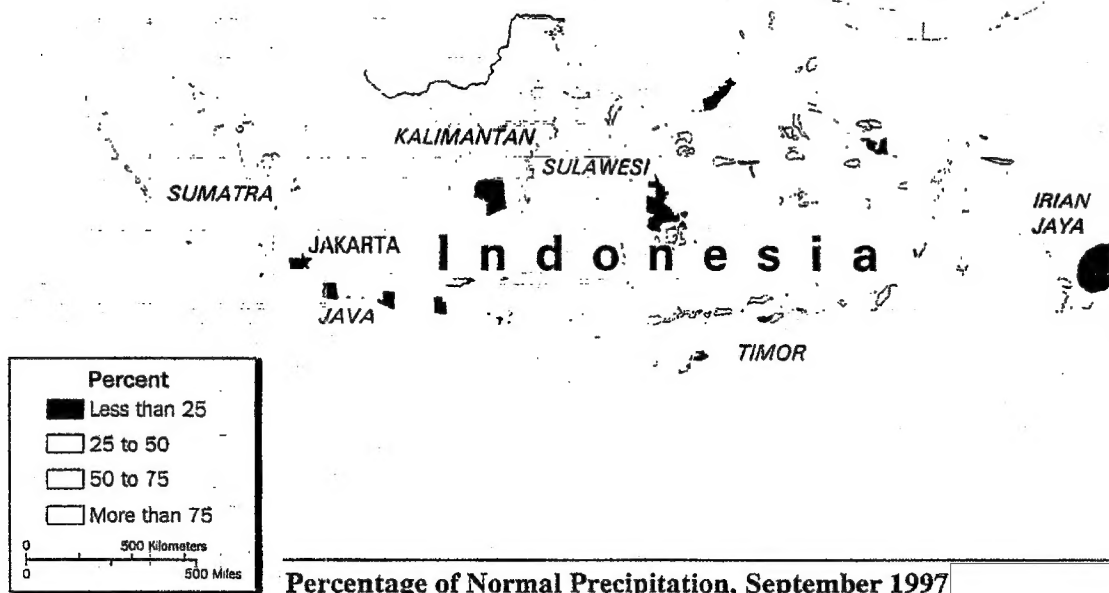
# Drought Creating Food Shortages



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Percentage of Normal Precipitation,  
May-September 1997



Percentage of Normal Precipitation, September 1997



## El Niño's Potential Impact on Stability in South America

US weather experts are not able to predict the magnitude of this year's El Niño, but most South American governments have laid the political and economic groundwork to respond to and mitigate potential disaster. Peru and Ecuador, likely to be hardest hit because of geography, were quick to declare emergencies and begin contingency planning in mid-July. Argentina, Brazil, Chile, and Venezuela have taken measures—such as developing plans to speed or delay harvests—to minimize El Niño's effects on agricultural production.

- Regional governments and international lending institutions already have set aside relief funds equal to the estimated damage of the last major El Niño in 1982.

El Niño's impact alone is unlikely to cause political or economic instability, but it could amplify the problems of governments already besieged by other problems. Most notably, Ecuador's lameduck administration faces mounting pressure from indigenous groups for failing to address their economic concerns, and Colombia's scandal-plagued administration has shown itself incapable of protecting its citizens from insurgent and paramilitary attacks.

- Bolivia's new coalition, meanwhile, appears slow to grasp the potential impact of the phenomenon; poor planning, combined with the country's outdated transportation infrastructure, could severely test La Paz's ability to deliver relief supplies.

- Fujimori, on the other hand, is advertising the efforts his government is taking in advance of a possible reelection bid in 2000.

Large-scale increased government spending on relief could strain fiscal budgets and reduce incumbents' ability to fund popular programs during coming reelection campaigns—particularly in Colombia, Ecuador, and Peru. Nevertheless, foreign reserves are at or near record levels throughout the region—providing flexibility to temporarily set up agricultural imports without encountering balance-of-payments problems.

## Southern Africa Bracing for El Niño

Drought conditions caused by the current El Niño event are likely to slow GDP growth in southern Africa by 1 to 2 percentage points next year.

While early warning and recent flooding will blunt the drought's impact, most governments are bracing for a 20- to 40-percent decline in agricultural output.

— Mozambique, Malawi, and Angola—the countries most dependent on subsistence agriculture—are the most likely to turn to international donors for additional food aid to avert starvation, according to the Southern African Development Community Food Security Unit.

— Zimbabwe and, to a lesser extent, Zambia have some grain stockpiled and viable commercial farming sectors that will help mitigate against famine.

temperatures in southern Africa are already above normal ranges. Recent academic research suggests drought conditions will peak in southern Angola in early January, followed by movement of the core area to Botswana, northern Zimbabwe, southern Zambia, northwest Mozambique, and, finally southern Malawi by mid-to-late fall.

Budget constraints in the region's largest economies—South Africa and Zimbabwe—are likely to limit local relief efforts and could increase internal political tensions.

Pretoria has already warned farmers to adjust sowing plans and herd sizes because, unlike during previous droughts, the government will not be able to provide cash relief.

— Harare announced plans to establish a \$129 million relief fund.

Without a sizable injection of funds, drought conditions will spur regional migration, putting pressure on urban unemployment and spreading any food crisis across borders. El Niño effects also will reduce real wages by raising food costs.

— In South Africa, drought is likely to harden organized labor's opposition to the ANC's market-oriented economic strategy by placing Pretoria's growth and employment targets for next year out of reach, according to press reports.

— Zimbabwe's President Mugabe, who already is under fire for mismanaging low-cost housing and veterans' pension funds, could face additional unrest—similar to

that which occurred after the 1995  
El Niño—if his government does  
not meet wage demands and  
imposes a drought levy. [redacted]

Drought will fuel intraregional competition  
for scarce water resources. [redacted]

[redacted] Namibia plans to divert  
water from the Okavango River in the event  
of a prolonged dry spell—a move that  
conservationists claim will damage the  
pristine Okavango delta and Botswana's  
most diverse wildlife refuge.

- Botswana plans to tap the Zambezi  
River, creating problems down-  
stream for Zambia and Zimbabwe.
- [redacted]

## Southern Africa:

### Threats to the Okavango

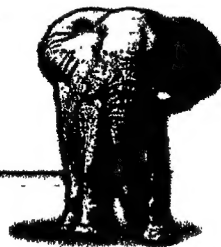


Conservationists worry that Namibia's modest plan to siphon 20 million of the 10 billion cubic meters flowing through the Okavango delta could have a wider environmental impact on the world's largest oasis. The director of Botswana University's Okavango Research Center is concerned the diversion could eliminate flood plains covering 90 square miles of the 5,800-square-mile delta. Large animals, such as elephants, would be forced to migrate, adding to their overpopulation in other parts of the country.

- Concerned by the extensive damage elephant herds cause to grasslands, Gaborone successfully pushed for an exemption to the Convention on International Trade in Endangered Species ban on elephant culling and ivory trade.

Moreover, experts are skeptical that Namibia will limit its outtake to 20 million cubic meters annually. A director of the Kalahari Conservation Society publicly noted the pipeline will have to operate full time, not just during peak drought periods, to recoup construction costs.

- Lowering the force of the river will prevent nutrients from reaching the edges of the delta and could cause silting, according to Botswana's Director of Wildlife and National Parks.





## Hazardous Radioactive Waste Disposal Practices in FSU

Most countries of the former Soviet Union have regulations and systems in place for disposing of radioactive material, but the material is rarely monitored because of its pervasive use in education, industry, and medicine. The absence of monitoring has led to the common practice of dumping radioactive material in trash bins, vacant lots, and landfills.

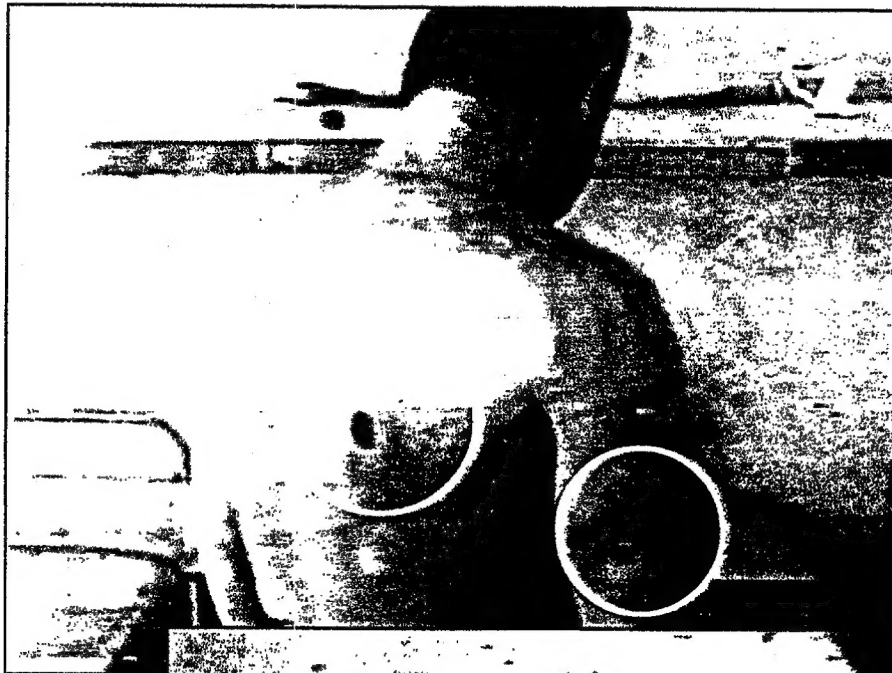
Standardized facilities for disposal of radioactive material—RADON facilities—are facing problems because of budget shortfalls and the sheer magnitude of radiation sources—press reports estimate 400,000. According to press reports, enterprises that normally would use RADON facilities cannot pay the hefty sums these facilities charge and are resorting to creating their own disposal sites.

— From 1982 to 1992, more than 800 dumped radiation sources were detected within Moscow.

Several cases of radiation poisoning—most recently in Georgia—have involved improperly disposed radiation sources.

The improper disposal of radioactive materials could contaminate commercial goods, posing a health risk to consumers. Several shipments of contaminated scrap iron from decommissioned nuclear-related facilities have been stopped at the Italian border, according to press reports; the metal was to be recycled into other products.

Georgian Radiation Casualties



Unclassified

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## Golan Water Valuable to Israel

Security remains Israel's prime reason for keeping the Golan Heights, but an impending water shortage in Israel is increasing the territory's value. Israel consumes about 2 billion cubic meters of water annually, of which 300 million cubic meters are drawn from the Golan

- With Israel's domestic supply of fresh water averaging only 1.8 billion cubic meters per year, this rate of water consumption is irreversibly harming the country's aquifers, according to academic studies of declining water tables and increasing salinity.

build new treatment facilities. The Israeli Government would seek Washington's assistance in financing the construction of such plants.

If the government allows the state water monopoly to raise prices, an academic study suggests households and industry would be willing to pay up to 14 times more for water than the farm sector. Farmers are likely to first reduce production of crops that use significant amounts of irrigation water, such as bananas, citrus, and cotton; these crops consume more than one-fourth of Israel's water but add only about \$400 million to the \$100 billion economy.

- Israel has made considerable strides in implementing water-conserving technologies, but losing access to Golan water would accelerate the decline in Israel's farming sector and lead to larger food imports.

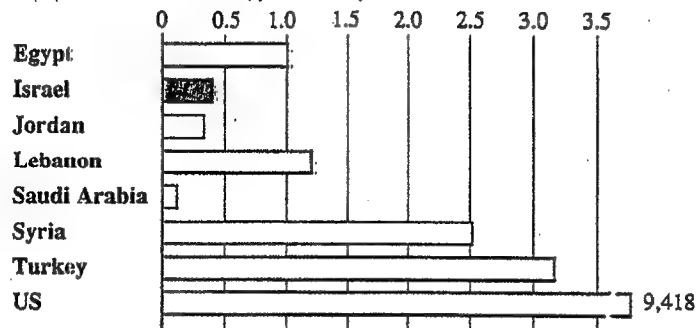
Meeting Israel's water needs with imports or water from desalinization and sewage treatment plants would be expensive, take time, and create additional security vulnerabilities. Even if neighboring countries would sell water, Israel would avoid relying on unpredictable foreign suppliers who could turn off the taps for political reasons.

Academic studies estimate providing 150 million cubic meters annually from desalinized seawater or treated sewage would cost about \$175 million; in addition, several billion dollars would be needed to

## Israel: Nearing Limits of Its Water Supply

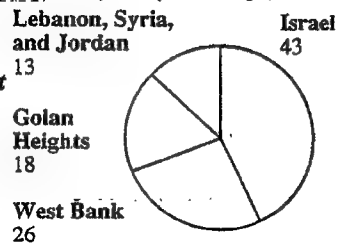
*Israel's per capita supply of fresh water is among the lowest in the region ...*

Thousand cubic meters per year



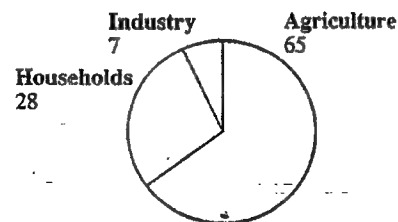
*... and the Golan Heights provides a significant share of water consumption.*

Percent



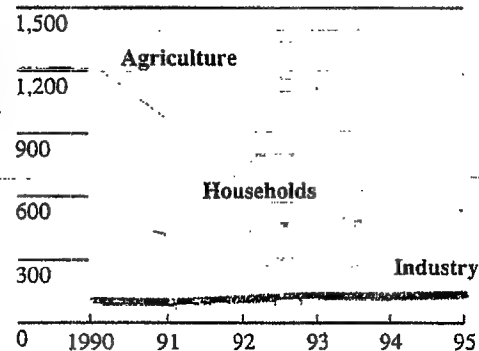
*Israeli farms use the lion's share of Israel's fresh water ...*

Percent

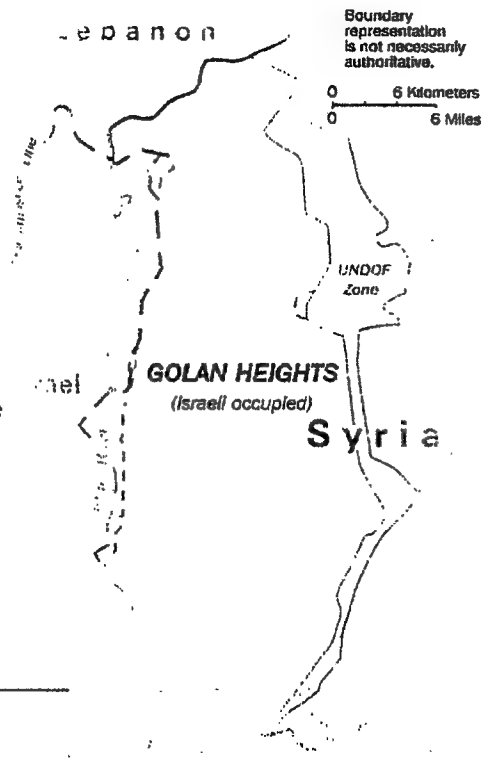


*... and would provide the cushion if Israel loses part of the Golan's water.*

Million cubic meters



<sup>a</sup>Excludes desalinated seawater.



## Desertification Conference Makes Little Headway [ ]

Delegates to the first Conference of Parties to the UN Convention to Combat Desertification (CCD) resolved few outstanding issues when they met in Rome earlier this month. In particular, participants made little progress deciding how to implement the goals of the CCD and how to pay for future projects.

[ ] the parties did not decide whether the International Fund for Agricultural Development (IFAD), the World Bank, or the UN Development Program would administer the Global Funding Mechanism, which was created to channel resources to affected countries. The UN estimates that \$42 billion will be needed to halt land degradation caused by desertification over the next 20 years.

- Moreover, the convention emphasizes a bottom-up approach—with a focus on local NGOs and grassroots organizations, which are still drawing up national action plans. Financial pledges to the fund will be voluntary, making it unlikely that significant new sources of aid will be forthcoming soon.
- The G-77 and China expressed concern that the CCD will receive less international attention—and funding—than other international environmental treaties, such as the Biodiversity Convention and the Framework Convention on Climate Change. [ ]

Parties did agree, however, to the location of the convention's secretariat and other bureaucratic issues.

- The selection of Bonn to host the permanent secretariat will facilitate the CCD's coordination with related activities of the climate change secretariat that also is located there.
- The parties selected Cuba to chair the Committee on Science and Development, and reiterated Africa's priority status under the convention, [ ]

*What is desertification? The CCD—drawn up at the 1992 Earth Summit—defines desertification as land degradation in arid, semi-arid, and dry subhumid areas resulting from climatic variations or human activities, such as deforestation, overgrazing, and soil erosion. The Rome-based IFAD claims that fertile land equivalent to the size of Ireland is lost annually to desertification and associated soil erosion. According to the UN, desertification costs more than \$10 billion per year—mostly from losses in food production—and affects more than 1 billion people worldwide. [ ]*

*What is being done? Many developed countries are providing aid on a bilateral basis to countries most affected by desertification. For example, under the Mediterranean Desertification and Land Use program (MEDALUS) launched in 1991, the EU has devoted significant resources to anti-desertification programs in the Mediterranean region—particularly in Italy, Spain, Portugal, and Greece—and*

in Africa. [REDACTED]

[REDACTED] EU officials often cite concerns about possible migration of large numbers of "environmental refugees" from Africa as a result of desertification.

—Germany supports more than 200 natural resource management and reforestation projects in Africa, Asia, and Latin America at a cost of \$1.3 billion, according to press reports.

—Italy—which claims 27 percent of its own territory is at risk—is active in Morocco, Tunisia, Egypt, and Namibia. [REDACTED]  
[REDACTED]

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## Colombia's Environmental Regime Weak

A major trash spill late last month in Bogota highlights weaknesses in Colombia's environmental protection regime. Some 800,000 tons of garbage, including hazardous chemicals, slid from a landfill into the Tunjuelito River, blocking it and creating potentially serious health hazards.

Short-term measures have been adopted to contain and clean up the slide, but Bogota has no long-term programs to address inefficient and dangerous waste disposal practices. initial cleanup will not address the chemical contamination of the river caused by the slide.

- Government officials expressed skepticism about USAID recommendations to use the crisis to involve local communities in pollution control and recycling.

The spill is emblematic of the urban water and air pollution problems Colombia is experiencing as a result of urban migration and rapid population growth. Bogota, like many Colombian cities, lacks the infrastructure to handle the population growth and is lined with open sewers.

- Local press reports say that Bogota's air quality ranks fourth poorest among South American cities.
- Another river, the Rio Bogota, is considered one of the most polluted waterways in the world.

Colombia's environmental crisis may present opportunities for US firms to export waste disposal equipment or to finance environmental protection projects. Press reports say the US firm Chase Securities recently financed a \$100 million wastewater treatment plant for Bogota.

- The plant is an initiative of the Bogota city government; meanwhile, three plants planned by the Environment Ministry for the Rio Bogota have been on hold since last year because of a lack of funds.

## French Nuclear Industry Suffers Another Setback

Electricité de France this month canceled plans to build a nuclear power plant in Carnet, according to press reports. The plant was to provide power when other nuclear plants will have to be taken off line for renovation starting in 2010.

- In a setback to France's quest for a plutonium fuel cycle program, the government in July announced closure of the Superphenix fast breeder research reactor, which is part of a French effort to achieve energy independence.

*Environmentalists have stepped up opposition to the Cap de la Hague nuclear reprocessing plant after a minor radioactive release occurred during a maintenance operation last month, according to press reports. A French epidemiologist in January released a controversial study showing an increased risk for leukemia in children whose mothers lived near Cap de la Hague while pregnant.*

Setbacks in recent projects may compel France to diversify its energy infrastructure, which relies on nuclear energy for 75 percent of its electricity supply. Steps such as moving to gas-fired power plants have been mentioned in press reports, but such changes would result in increased emissions of greenhouse gases.

- The EU has advocated cutting carbon emissions by 10 percent by 2010, France could have trouble meeting that target solely from the transportation sector.

A slowdown in domestic nuclear power plant construction may prompt the industry to turn to increased foreign sales. French companies already have major projects in China.

Prime Minister Jospin's appointment of Environmental Minister Voynet of the Green Party—which is opposed to nuclear power—may hinder projects in the sector. Jospin may have to offer concessions on nuclear power to keep the Greens in the governing coalition.

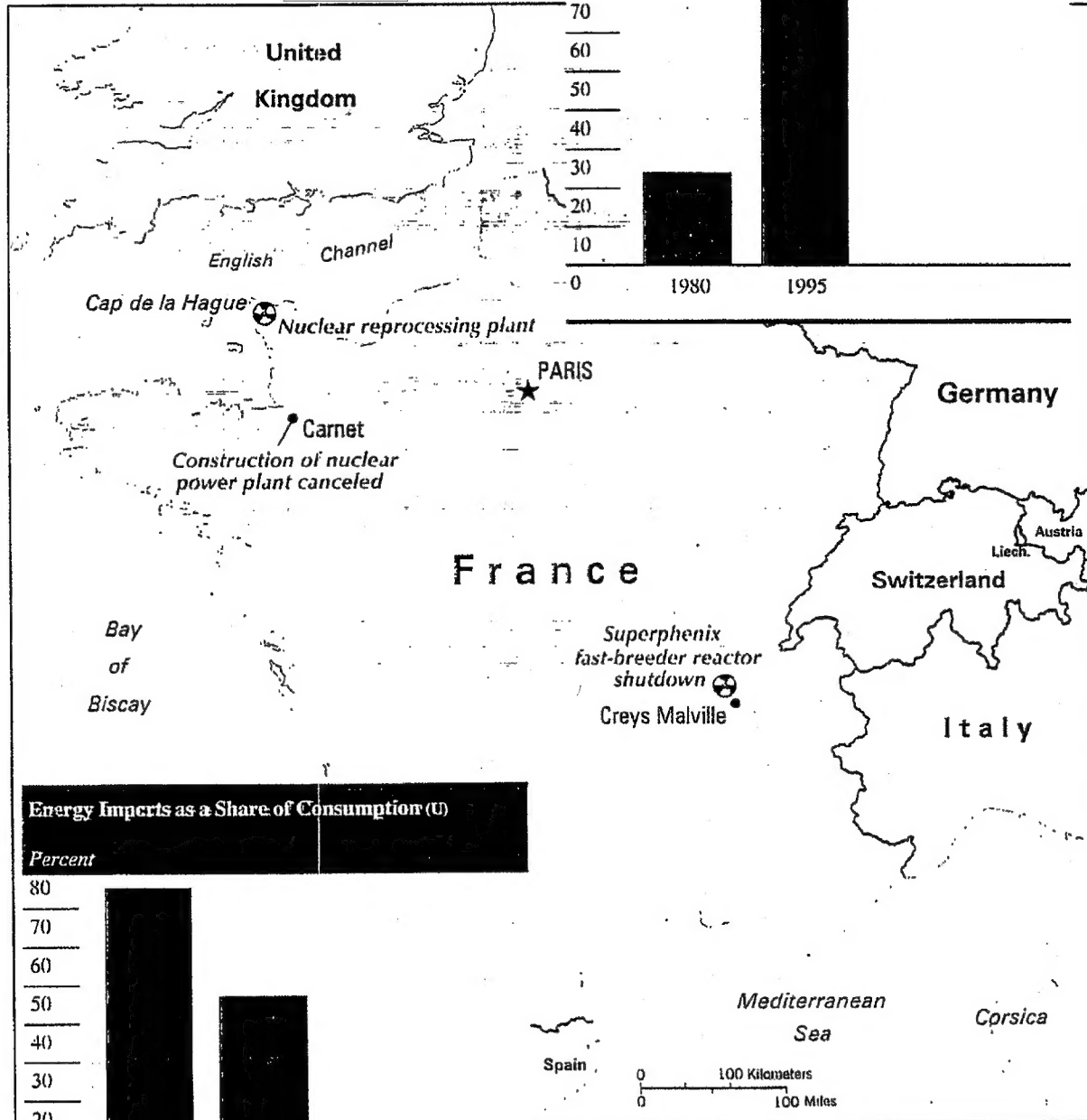
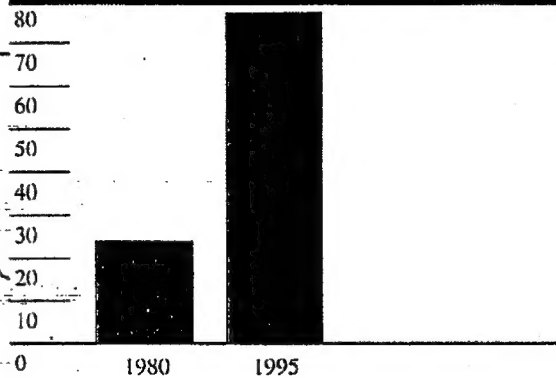
- Party members already have been angered by Jospin's apparent retreat from campaign promises to repeal tough immigration laws and shorten the workweek, according to press reports.
- Jospin would retain a majority without the Greens, but probably calculates the loss of that party could prompt other defections.



# France: Electricity Consumption and Energy Dependence

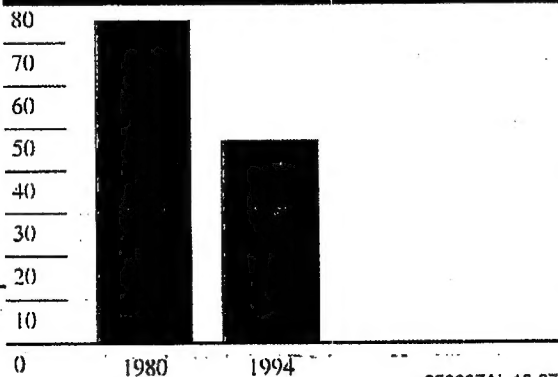
Nuclear Generated Electricity as a Share of Total (U)

Percent



Energy Imports as a Share of Consumption (U)

Percent



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Unclassified

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**Calendar**

<b>Selected International Environment-Related Meetings</b>		
<i>Date</i>	<i>Forum</i>	<i>Venue</i>
20-31 October	Prepartory Session on Climate Change	Bonn
27-31 October	Nineteenth Meeting of Parties to the 1972 London Convention for the Prevention of Marine Pollution by Waste Dumping	London
25-26 November	APEC Workshop on Environmental Technology Exchange	Osaka
25-29 November	APEC Summit	Vancouver
4-6 November	Global Environment Facility Council Meeting	Washington
30 November	Defense Ministerial of the Americas	Cartagena
1-12 December	Third Conference of Parties to the Climate Change Convention	Kyoto
16-17 December	EU Environment Ministers Meeting	Brussels
February 1998	Rescheduled Fourth Conference of Parties to the Basel Convention on Hazardous Waste (October session was postponed due to forest fires)	Kuala Lumpur